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ABSTRACT

To provide an opportunity for communication among selected vocational and general education leaders who are interested and involved in graduate education, 19 university, state and federal officials, and specialists attended a 4-day seminar designed to: (1) identify leadership roles and competencies, (2) identify and describe social and behavioral science elements as they apply to vocational and technical education, (3) explore ways to optimize interinstitutional cooperation in graduate programs, and (4) recommend ways to improve graduate education programs for vocational and technical education leaders. To accomplish seminar objectives, major papers were presented by R. N. Evans, G. L. Mangum, and J. K. Little, several participants prepared brief reactions to the papers, and one day was devoted to discussion of crucial problems facing doctoral graduate students in vocational and technical education, with recommended solutions. A summary of significant events and activities, and texts of the major papers are included. (SB)

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Leadership Training Series No. 30

A SEMINAR ON GRADUATE EDUCATION PROGRAMS

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION

THE OHIO STATE UNIVERSITY
1900 Kenny Rd., Columbus, Ohio, 43210

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The Center for Vocational and Technical Education has been established as an independent unit on The Ohio State University campus with a grant from the Division of Comprehensive and Vocational Education Research, U.S. Office of Education. It serves a catalytic role in establishing consortia to focus on relevant problems in vocational and technical education. The Center is comprehensive in its commitment and responsibility, multidisciplinary in its approach and interinstitutional in its program.

The major objectives of The Center follow:

1. To provide continuing reappraisal of the role and function of vocational and technical education in our democratic society;
2. To stimulate and strengthen state, regional, and national programs of applied research and development directed toward the solution of pressing problems in vocational and technical education;
3. To encourage the development of research to improve vocational and technical education in institutions of higher education and other appropriate settings;
4. To conduct research studies directed toward the development of new knowledge and new applications of existing knowledge in vocational and technical education;
5. To upgrade vocational education leadership (state supervisors, teacher educators, research specialists, and others) through an advanced study and in-service education program;
6. To provide a national information retrieval, storage, and dissemination system for vocational and technical education linked with the Educational Resources Information Center located in the U.S. Office of Education.

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Leadership Training Series No. 30

A SEMINAR ON GRADUATE EDUCATION PROGRAMS

JOSEPH P. ARNOLD

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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U. S. DEPARTMENT OF
HEALTH, EDUCATION AND WELFARE

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PREFACE

Improved personnel development programs provide one of the most powerful strategies for improving and extending vocational and technical education. To assure effective leadership in vocational and technical education, advanced graduate programs in this area must be improved. Thus graduate education warrants systematic and continuous study to relate objectives and content more effectively to the emerging leadership needs in the field.

The Seminar on Graduate Education Programs examined the changing functions of vocational and technical education leaders as a means of formulating strategies for improving the efficacy of advanced graduate education. We trust that this report will be of particular value to university faculties and others involved in graduate program development and design. The thinking of participants and project staff synthesized in this report should contribute to increased insight and perspective to a number of critical problems in improving graduate education.

The Center is indebted to the 19 university, state and federal officials and specialists who participated in the seminar. Special recognition should be given to Joseph Arnold, Center specialist in research and development, who provided the overall direction for the project; and to Darrell Ward, Center specialist in state leadership, for his participation throughout the planning and conduct of the seminar.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

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A SEMINAR ON GRADUATE EDUCATION PROGRAMS

I

INTRODUCTION

The increased pressures and responsibilities faced by vocational and technical education leaders are sufficient cause for a critical review of the advanced training requirements and practices currently in existence for their preparation. The Vocational Education Amendments of 1968 clearly amount to a comprehensive mandate for vocational and technical education administrators and other leaders to do more and to do a better job of everything with which they presently are concerned. As one studies such recent legislation and observes the flurry of resulting activity to plan, expand, and adapt, it would seem facetious to expect the present leadership in the field to carry out the responsibilities without additional or greatly revised perspective and direction. Hence, pressures for improving graduate education for leadership in vocational and technical education have become more clear as a result of the 1968 vocational education legislation. Further, the Education Professions Development Act contains the first major legislative recognition that leadership preparation is indeed crucial to educational improvement. Recent Congressional action, then, has been a catalyst not only for reviewing and restructuring the priorities and goals for vocational and technical education, but has also exhibited both implied and stated concerns for developing the leadership required for attainment of those goals.

The field of vocational and technical education has long relied upon realization of its leadership through two main channels: a) the ranks of vocational teachers and coordinators; and b) talent from government, industry, and business. Shifts within these two main routes to leadership positions have a variety of implications for leadership preparation.

The recently expanded, rapidly changing, and hence more complex leadership responsibilities in the field are asserted to be the most important reasons underlying the planning and conduct of this graduate education seminar. An additional reason for this seminar is the current public demand for more efficient and more effective education at all levels. Programs of advanced preparation for leadership are especially important as a direct influence in providing the expanded vision and capability needed for realization of the contemporary goals of education and society.

Most major universities offering advanced graduate preparation in vocational and technical education are in the throes of program evaluation, revision and improvement. University graduate program planners in vocational and technical education have expressed a need for a seminar to improve avenues of communication to give proper perspective to their plans for program revision and updating.

Assumptions

A number of assumptions evolved as planning for the seminar progressed. Assumptions which tend to summarize the rationale for the conference are itemized as follows:

1. A variety of inadequacies in job performance by vocational and technical education leaders and graduate preparation for vocational education leadership can be identified in the seminar.
2. Much of the present graduate education for preparation of vocational and technical education leaders shows little evidence of conscious attempts to relate preparation to the actual roles and responsibilities of the positions. Rather, most has been based on institutional policy, availability of teaching and program resources, and the professional intuition of the program planners and advisers.
3. Responsibilities and duties in many leadership positions are changing, perhaps more dramatically and rapidly at present than at any other time.
4. No single university is likely to have the total resources and organization required for providing all phases of graduate education as preparation for leadership positions.
5. The social and behavioral sciences deserve close scrutiny for their relationship and contribution to current leadership roles and responsibilities.

Intent

Planning of the seminar was focused on identifying and studying selected methodologies, concepts and content alternatives for advanced preparation of vocational and technical education leadership personnel. The purpose of the seminar was to provide a vehicle for communication and planning among selected vocational and general education leaders who have current interests and involvement, and hence are likely to have a significant contribution to make, in graduate education. The seminar was also intended to produce a report which would form a basis for subsequent, organized coordination and development in advanced graduate vocational and technical education.

"Advanced" preparation was intended to apply predominantly, but not exclusively, to university based or sponsored preservice and in-service preparatory programs and experiences beyond the master's degree. This emphasis on advanced graduate preparation was purposefully broad to allow and encourage discussion of the real issues and problems rather than to have prematurely concerned the participants with program placement, sequence, and other problems of a more specific nature.

The objectives of the seminar were:

1. To identify vocational and technical education leadership roles and competencies for which graduate education programs should be designed.
2. To identify and describe the elements of the social and behavioral sciences which warrant inclusion in graduate education programs for leadership in vocational and technical education.

3. To explore ways and means of optimizing inter-institutional cooperation in graduate education programs.
4. To formulate recommendations for more effective and efficient graduate education programs for potential vocational and technical education leaders.

Participants

Four types of participants invited to the seminar were: 1) university graduate education faculty and administrators with current involvement in advanced graduate program preparation and operation; 2) recent doctoral recipients (in vocational and technical education); 3) representatives of the U.S. Office of Education, particularly the Bureau of Educational Personnel Development; and 4) selected state, local, and national leaders whose present functions and positions would relate to the training objectives of graduate programs. Participants' names and employing agencies are listed in APPENDIX A.

Operational Summary

The seminar was undertaken with the realization that some difficulty in adequately treating each of the specified objectives might be experienced. Topics based on the objectives were assigned to time blocks and procedures were devised for introducing the topics for discussion. The program included the following major events:

1. Commissioned papers (Evans, Mangum, and Little) were an attempt to define the leadership context for use in the seminar and to develop a base for attainment of the objective to identify elements of the social and behavioral sciences for inclusion in vocational and technical education leadership preparation. The papers (and related materials) were distributed to participants for study prior to the seminar to increase the time available for substantive discussion.
2. Several participants agreed to prepare and present brief reactions to the papers. Two reactions to each of the three commissioned papers were used as introductions to the topics, which in turn provided transition into discussions by the total group of participants.
3. Consultants were commissioned to author the papers, in one case to act as program chairman, and to guide and stimulate discussion of the agenda topics.
4. The last day of the seminar was devoted to synthesizing previous discussions, papers, and presentations to arrive at: a) a description of the crucial problems facing doctoral graduate students in vocational and technical education, and b) recommendations for their solution.

II

DEFINING LEADERSHIP

The purpose of this section of the report is to summarize the most significant events and activities of the seminar, and to synthesize and interpret salient points from the discussions, commissioned papers, and other seminar inputs into a meaningful discussion on graduate education for vocational education leadership. Accordingly, a strong relationship was intended between the topic headings in this section and the objectives of the seminar.

Administrative Leadership

Definitions of leadership are many, and a common, agreed upon definition was needed for the seminar to provide a focus on specific areas of leadership in the field of vocational and technical education. Thus, the first general discussion of the seminar was an attempt to define leadership in a way which would narrow the focus to a consideration of specific leadership positions, functions, and responsibilities in vocational and technical education. The group tended to agree that administrative leadership should become the primary focus of the seminar. Based upon that qualification, leadership positions were identified which warranted special attention in the discussions.

Little described the conflicting functions of the administrator in Chapter III of the report. His analysis of the management function as a stabilizing influence has important implications for the preparation of administrators who are expected to operate in a world of change. Lipham (7) differentiated similar functions, classifying administration itself as stabilizing in nature and leadership as disruptive. According to Little (see Chapter III), administrative leadership must contain a balance of both elements since the vocational education administrator is typically required to perform both functions.

The Leadership Context

The context for leadership in vocational and technical education has yet to be formally agreed upon or analyzed. There have been a myriad of legislative changes, particularly since additional stress on post-high school programs has become a trend of major importance. New boards and agencies have been created at local and state levels to coordinate occupational programs in new institutions. Local directors of vocational education now must administer programs to prepare persons for new occupations; school staffs in many cases are likely to include persons with functions and specialties not in existence a few short years ago. The context has recently undergone extensive change and adaptation as a result of changing social, economic, technological, and political conditions. This leaves those concerned with the preparation of vocational education leadership per-

sonnel without a firm basis for the development of leadership development programs.

To attempt to describe the complete context of vocational and technical education as groundwork for the preparation of leaders was beyond the intent of this report. However, a few of the major determinants of the vocational and technical education leader's job are: a) the kinds of persons with whom the vocational education leader works, b) the fiscal resources and procedures with which he operates, c) the relationships with agencies other than his own, d) the capabilities and characteristics of his own staff, and e) the legal framework within which he functions.

The manner in which the context can be organized and adapted to fit the leader may be as important as preparing leaders for any given position. Fiedler (3) concluded, from several studies of leadership styles, that the type of leadership called for in a given situation depended on the favorableness of that situation and that it was, perhaps, more feasible to change the characteristic favorableness of the leadership situation than to train or match a particular person with a particular position. He identified three possibilities for adapting the job to the individual: a) change the leader's position power, b) change the task structure, or c) change the leader-member relations (by changing the composition of the group).

Although Fiedler's recommendations at first apear to lessen the importance of leadership preparation, it is leaders with perspective and procedural know-how who must be available and ready to make the necessary preparation in their organizations for adapting the job to the individual—this implies a comprehensive leadership task of considerable complexity in itself.

Teacher Education and Leadership Preparation

The relationship of teacher education to leadership preparation received some attention during the seminar. Evans (APPENDIX D) used teachers and teacher education as the base for his paper on staff development in vocational education. Inherent in his paper was the assumption that teachers are still, and are likely to continue as, the primary population for movement into leadership positions. In his paper, the problem was presented as one of staff improvement rather than leadership preparation specifically, starting with the development of a single philosophy of preparation for vocational and technical education teachers and administrators. A common philosophy would contribute to establishing a foundation for graduate education programs for leadership.

Evans proposed several steps for improving the quality of staffing in vocational education, among which were:

1. Base pay on merit and on supply and demand, rather than on hours of education and seniority.
2. Eliminate certification, if it cannot be substantially modified.
3. Limit teacher tenure to 10 years, with renewal or notification of non-renewal near the end of this period.
4. End discrimination by sex in the employment of teachers.
5. Make preservice education the primary responsibility of the university, with substantial involvement of local and state agencies.

Leadership Positions in Vocational and Technical Education

All of us can identify a variety of positions in vocational and technical education which imply advanced graduate preparation. However, to say that the doctorate is a necessity, or even desirable as a requirement for certain positions, must be based on assumptions about the status, job function and nature of the groups with which the leader is to interact. Hence, to require the doctorate for certain positions is judgmental at best.

Early discussion in the seminar was focused on attempts to gain consensus on key leadership positions for which doctoral preparation should be a requirement. Although by no means unanimous, there appeared to be sufficient agreement on the first three types of positions from the following list to warrant their consideration as a part of the definition of administrative leadership. The total list of positions is:

1. State level administrative and supervisory staff and specialists, e.g.:
   State Director of Vocational and Technical Education
   Director of Planning and Evaluation
   Curriculum Specialist
   Service Area Specialist
2. Local administrators, e.g.:
   Local Director of Vocational and Technical Education
   Director, Area Vocational School
   Dean of Technical or Occupational Studies, Community College
   Technical Institute President or Director
3. University based vocational and technical teacher educators, e.g.:
   Teacher Education Department Head
   Graduate and Undergraduate Program Advisors
   Curriculum and Research Specialists
4. U.S. Office of Education staff and specialists.
5. Researchers and research administrators.
   (These positions overlap with and are found at every level as part of numbers one through four.)
6. Training directors in business and industry.

It was not possible to establish degrees of importance or priority on each leadership position, but it was evident that leadership positions at the state, local and university levels (items 1 through 3 above) were of primary concern to seminar participants. Positions described in items 4, 5, and 6 were assumed to imply a parallel and probably equal need for advanced preparation but for various reasons were not emphasized in the seminar.

It was noted in the discussion that advanced preparation may not be particularly necessary for all supervisory or administrative positions. However, advanced graduate leadership preparation is vitally concerned with qualifying less advanced administrators, teachers, and other professionals for more responsible positions. Leadership preparation, then, has two primary purposes, i.e.: 1) to improve an individual's qualifications to perform his present job, and 2) to prepare him for a more advanced position of greater responsibility and influence.

Leadership Roles and Responsibilities

The natural sequence of events in the seminar signalled early derivation and study of the responsibilities, roles and competencies of leaders as a basis for later work in relating the social and behavioral sciences to the leadership function in vocational and technical education. An attempt was made to obtain agreement on a set of responsibilities and competencies toward which graduate preparation should relate. However, divergent views in the group of participants, lack of sufficient time, and perhaps the absence of a suitable methodology to apply to the problem precluded the development of a set of responsibilities and competencies upon which the group could agree.

A list of nine areas of responsibility was developed and presented to the participants for use as a starting point. The nine areas are presented in this report for their possible use in classifying leadership competencies and roles and also for analyzing present graduate education requirements for vocational and technical education leaders.

The areas of responsibility are:

1. Curriculum and Instruction
   Advise, direct, and coordinate the development of contemporary vocational and technical curricula and supervise instruction of students.
2. Evaluation
   Develop and implement state or local patterns and procedures for the evaluation of vocational and technical education programs, staff, and instructional practice.
3. Fiscal Responsibility
   Procure, manage and control federal, state, and/or local funds for vocational and technical education.
4. Legislative Influence and Authority
   Advise and consult with legislators, government officials, and special interest groups on the improvement of vocational and technical education facilities, programs, and policies.
5. Program and Facilities Planning
   Consult, advise and assist local, state, and other school authorities on the design and improvement of vocational and technical education facilities and programs.
6. Public Relations and Liaison
   Interpret and communicate state plans, regulations, and policies among local school districts, state agencies, community colleges, universities, and other organizations involved in vocational and technical education.
7. Research and Development
   Initiate, encourage, assist, supervise and coordinate experimental, demonstration, and other innovative programs which focus on the improvement of vocational and technical education.
8. Staff Development and Improvement
   Plan, advise, and assist in the initiation and conduct of preservice, and in-service and special programs for the improvement of teachers, ad-

ministrators, supervisors, teacher educators and other professionals in areas relevant to vocational and technical education.

9. Student Affairs

   Initiate, manage, supervise and/or coordinate systems, regulations, and policies governing standards and practices for student recruitment, admission, conduct, progress, and follow-up after graduation or withdrawal.

In his study of competencies for local leaders of occupational education, Ward (12) cites 11 top ranking competencies and coordinates these with the foregoing nine areas of responsibility as follows:

Areas of Responsibility	*Competency*
(3, 5)	1. Work with the central educational administration to initiate and maintain occupational education programs.
(4, 6)	2. Organize and use local occupational education advisory committees.
(6)	3. Establish and maintain effective working relationships with trade, labor, management, agricultural, and manpower organizations.
(6, 8, 9)	4. Interpret the vocational program to teachers, parents, students and the community.
(1, 8)	5. Coordinate the activities of the vocational teaching staff.
(1, 2)	6. Conduct evaluations of vocational education programs.
(all)	7. Effectively express himself both orally and in writing.
(2, 5)	8. Develop criteria for and evaluate facilities and equipment needs of occupational preparatory programs.
(5, 6)	9. Relate the occupational education instruction program to the other school curricula.
(5, 7)	10. Locate and use community resources in program planning and operation.
(5, 7, 9)	11. Identify and interpret into meaningful programs community, labor market and student needs.

A list of 24 major responsibilities and problem areas was compiled by one of the small groups during the seminar. A selection of eight items, some of which may qualify as objectives rather than responsibilities, was made from the 24 and are cited as follows:

1. Working with people and the group interaction process.
2. Understanding and relating to various cultures.
3. Meeting the needs and interests of people as well as those of industry and business.
4. Establishing priorities and alternative planning with limited resources.
5. Obtaining community support.
6. Assessing and evaluating staff and programs.

7. Determining obsolescence of programs, facilities, and equipment.
8. Implementing change in a large urban school system.

Study of all three lists of responsibilities, problem areas and competencies shows a strong concern for the continuing occupational, social, and psychological needs and interests of people rather than merely the operation of school programs.

Recommendations

The foregoing lists, at best, collectively represented a beginning point in the identification of tasks and responsibilities to which graduate preparation should relate. Seminar participants seemed to agree that the concern for and development of leadership responsibilities and tasks was indeed the appropriate place to start in the seminar, but only partial development of such a list was accomplished. It would appear that formal research of leadership roles, tasks, competencies, and responsibilities is a critical and initial step for use as a basis for graduate program decisions.

III

LEADERSHIP AS VIEWED BY A PSYCHOLOGIST*

"In leadership, performance depends upon what the man is, what the job is, and what the situation is."—Renato Taguin

Taguin's statement succinctly summarizes the status of knowledge about leadership behavior. There is much information about characteristics of leaders, about types of organizations, about leadership styles and practices, and about relationships of leaders to those whom he leads. But much of this information does not translate into knowledge, when knowledge is defined as information found directly useful in specific areas of application. The statement also illuminates the fact that while leadership behavior is a complex that may be studied in its psychological, sociological, or behavioral science aspects, individuals attain positions of leadership by myriad routes and display manifold styles in those positions. No specific discipline holds the key to understanding leadership phenomena, whether leadership is treated as an art or as a science.

This paper undertakes to describe the contributions of psychology to preparation for leadership in vocational education. The accurate statement is that the paper reports the viewpoints of a psychologist as he looks at leadership requirements in vocational education. This discussion therefore will not be a recital of the studies made by psychologists on leadership phenomena. Rather it will try to catch the essence of current information, speculation, and informed thought about leadership behavior as interpreted by a person whose training and experience have kept him close to its psychological aspects, but whose interests encompass the whole range of circumstances and situations in which leadership is observed or needed.

It is helpful to observe at the outset that leadership may be considered as one of two primary functions of the administrator. The other function is management. Leadership behavior is required in the exercise of either function, but the two functions make differing psychological demands upon the administrator. The leadership function requires the capacity to "live ahead" of his institution; to interpret his institution's needs to the public, and the public's needs to his institution; and to conceive and implement strategies for effecting changes required for his institution to fulfill its purpose. The management function requires the capacity to arrange and operate his institution in a manner which elicits an efficient and effective effort of the total membership of his institution toward its purposes. The leadership function is a stimulating, prodding and sometimes disruptive influence. The management function has a smoothing and

* Dr. Little's paper is one of three commissioned by The Center for use in the seminar. The material, its organization, and its implications were considered as sufficiently appropriate for inclusion in its entirety at this point in the report. The other commissioned papers are located in APPENDICES D and E.

stabilizing influence. The first emphasizes creative planning, initiative, and future-facing boldness. The second stresses efficiency and productivity through teamwork and consideration of others. The first represents Mr. Outside; the second, Mr. Inside. These two sets of capacities are seldom found in the same strength in the same individual. Some administrators, recognizing their own strengths or limitations, choose one of these rules and supplement themselves by an assistant who is effective in the other role. This discussion should not lead to the inference that generalizable traits which discriminate between "leaders" and "managers" have been found. In fact, studies of the traits of "leaders" have not been fruitful precisely because leadership exists only in the context of groups, their membership and their purposes. So let us turn first to the consideration of the first of Taguin's leadership triad, "what the man is."

What the Man Is

A leader may be defined as one who commands or whose example motivates followers to do as is indicated. A leader may command by reason of an office he holds and the authority invested in it; or he may lead by reason of his capacity to initiate plans and actions which by their merit command respect and elicit support among the members of his institution. Both types of leadership are important in any organization. The official or structural leader is necessary to establishing accountability in the decision-making activities of the organization, but leadership in the decision-making process should arise at many points in the organization. In fact, it should be an objective of the official leaders to cultivate initiative and responsible decision-making in all parts of his organization, and to cultivate a free-flow of information from all parts of the organization to the point in the organization which is accountable for the type of decision to be made.

Attempts to describe and catalog the traits and characteristics of leaders have included biographical studies, psychological tests and measurements, factor analyses, psychoanalytic techniques, simulation exercises, and the everyday observations from which conventional wisdom develops.

So far, efforts to put the selection of leaders on a scientific basis have not been highly successful in any field of application. Ideas of the "born leader" persist, particularly when leadership is evidenced by the extraordinary creativity, inventiveness or productivity associated with genius.

Edwin G. Boring in a discussion of great men and scientific progress observed, "We are now in the United States training, as we say, thousands of young scientists. We teach them facts. We practice them in the use of methods. We endeavor, in a way not too clearly understood, to inculcate certain attitudes in them. And then, having done our best, we wonder why so seldom the spark of originality is found—for we never expect to uncover the flame of genius. Perhaps this plus which is neither prevented nor assured by training is not got by training at all but can only be captured by selection on its adventitious occurrence. . . . Perpetually we tinker with curricula for making poor brains good, and yet we do not know just what it is that we should like to achieve."

Administrative behavior, however, is not rare, but common; few persons can move through life without experiencing the responsibilities of leadership of some group for some purpose. The experiences begin with the play life of preschool children, include the activities associated with school experiences, continue with the responsibilities that emanate from occupational careers, develop with the management of a home and family, and are involved in the exercise of duties in social and civic organizations. It is useful, therefore, to replace the idea of the "born leader," in the sense of a person with God-given traits with the incontestable assertion that such a leader is born, but the development of his leadership trait skills is an outcome of the interaction between the chances which arise in a person's total life experience and the choices the person makes when those chances arise.

Gardner Murphy in his discussion of the biosocial origins and structure of personality makes these cogent observations. "The great individual causes extensive change; the personal factor has become of colossal magnitude. . . . In a time of crisis the individual likely to become a leader is he who senses the prevalent needs and knows how to structure the solution. If leadership that will enrich personality and satisfy its many potentialities is what we want, we must begin schooling the leaders early in life. . . . The more there are of these potential leaders, the more competent they are and the more deeply they love their task, the greater the likelihood that at the points of choice in the coming years they will guide the pent-up energies of a confused people in the direction of genuine self-realization." The viewpoint that leadership skill can be cultivated is the hopeful and workable hypothesis, and is the basic assumption of this discussion.

What does leadership require of a man? Perhaps the answer to this question best describes the leader as a man. This discussion concentrates upon the psychological demands placed upon a person occupying an official leadership position of major importance in a state or city program of vocational-technical education. Job-knowledge in the sense of thorough acquaintance with vocational-technical education in its major facets is assumed. He knows the purposes and expected outcomes of his organization or institution. He knows the characteristics of the students and the nature of the teaching-learning process. He understands the responsibilities and needs of teachers and supporting staff. He knows the needs of his organization or institution for buildings and equipment that will facilitate the accomplishment of its purposes. He knows the total environmental conditions under which this organization or institution must operate. He knows the criteria by which the effectiveness and efficiency of his organization or institution should be evaluated. He knows that his organization or institution is a system which operates within larger systems with larger purposes. The enumeration of these items of assumed knowledge should convey the fact that desirable administrative leadership requires a highly knowledgeable man. The phrase "highly knowledgeable" is used in place of "broadly educated" to indicate that the acquisition of this knowledge proceeds from many experiences other than taking formal courses in psychology, sociology, administration, or other disciplines. But assuming the presence of this body of relevant knowledge, administrative leaders are subject to demands upon their fund of

knowledge and their psyche that affect their performance as individuals and the success of their organization or institution. The following set of psychological demands have been found useful in evaluating persons for administrative positions:

Intellectual Competence

Scores on standardized intelligence tests are less useful than observations of the individual's intellectual habits and skills. How able and quick is he to identify central factors in complex situations? Does he express ideas logically, clearly, analytically, comprehensively? Is he flexible in his thinking, and receptive to new ideas? Does he plan ahead? Can he work both rapidly and with precision? Does he initiate successful proposals or programs? Can he keep several activities moving without losing track of any of them?

Emotional Stability

Leadership positions make demands upon the inner life of the individual. The man without a mature system of values and beliefs guarded by protective habits and attitudes is likely to be tossed about on the stormy seas of administrative life. The pertinent questions are: How does he handle his strongest emotions? Does he take his feelings out upon his associates, his family, or upon himself? Does he boil over, or does he sulk inwardly? One set of habits may ruin the health of his organization; the other may destroy his own physical well-being. How strong is his drive and store of energy? Can he maintain steady effort under pressure? What are his responses to frustration and disappointment? Is he consistent in his behavior toward others? How well does he assume and exercise authority? Responsibility?

Human Relations

The ability to work effectively with others is probably the key skill of the effective leader. Modern concepts of organizational leadership emphasize the "team" concept, and the necessity of using procedures which optimize the movement of the entire organization toward its goals. These procedures include the appropriate participation of the total membership of the organization in its decision-making processes. The leader displays skill in face-to-face relationships with associates, conveys genuine interest and concern for their problems, and welfare, shows respect for their ideas and contributions, sets reasonable expectations for their performance, and suitably rewards their achievements. The genuine person and leader does not need gimmicks.

Insight

This ability has some of the attributes of diplomacy and tact. It is the ability of a person to distinguish symptoms from causes; to perceive inner feelings that are belied by outward behavior; to sense impending difficulty from minor cues; to perceive the propitious time for action; to know his own weaknesses and strengths and to accept them objectively. He commands respect without excessive display of authority; disagrees with others without becoming disagreeable; he accepts criticism without self-depreciation. In fact, he has a special set of skills in human relations which would be valuable attributes of

any person. In abstract terms, those skills are sometimes described as social intelligence.

Ability to Organize and Direct Others

This ability emphasizes the capacity of a leader to organize the activities for which he is accountable into workable components; to select persons who match the requirements of those positions; to delegate responsibilities to the persons selected and to instruct them, as needed, in the performance of their duties; to solicit their ideas for improving the performance of the organization; and, in general, to cultivate a desire among all his associates to maintain high standards of performance for the organization as a whole.

Psychological demands upon the leader issue from the functions and responsibilities of organizational leadership, namely formulation and implementation of policy, coordination of the organization's goals and activities with the expectations of the broader society, initiation of change, motivation of others, refereeing interpersonal and intra-organizational conflicts, and as a result achieving the purpose of the organization. There is a remarkable similarity between the functions of the administrator and the functions of a teacher. The successful teacher cannot "learn" his students; he designs a system by which pupils may learn. The successful administrator does not "administrate" his organization; he designs a system by which members of his organization gain personal satisfaction from their part in moving the organization efficiently and effectively toward its purposes. The psychological processes which undergird an effective teaching-learning situation are also a strong foundation for the administrative process. As Rensis Likert points out in his *New Patterns of Management,* leaders make full use of the potential capacities of the members of their organizations only when each person is a member of one or more effectively functioning groups that have a high degree of group loyalty, effective skills of interaction, and high performance goals. Leadership must assure a maximum probability that each member will view his experience as one which builds and maintains his sense of personal worth and importance.

In summary the successful leader, as a man, is the person who by some combination of personal traits and happenstance of events in his life gravitated toward the leadership role. This phenomenon is observed in early childhood. In their play groups, certain children seem to take charge, or to be adept at teaching a game to others, or to be the center of ideas and proposals for action. At this early age also, leadership may change from person to person, as the composition of the group changes, or as the type of activity changes. So we turn now to the consideration of the nature of an organization and its demands.

What the Organization Is

Central tasks of the educational administrator are first, the organization of the work to be accomplished; and second, the organization of the people to accomplish the work. The organization of the work implies clear delineation of purposes, identification of tasks and equipment, selecting personnel, and doing all other things necessary to planning responsibilities. The specialized knowledge, or accessibility to it, that is required is amply described in the

literature of educational administration. But the organization of people is, in the modern idiom, the name of the game. As someone has said, there is not much wrong or right with the world except the people who are in it. So with organizations, the happy condition is one in which people are happy.

It may be helpful to know what has been learned about the difference between a happy and a hapless organization.

The official and formal organization typically consists of a description of the administrative chain of command as shown by a table of organization or an organization chart. The purposes of the organization, lines of command, channels of communication, loci of decision-making, and operating rules are spelled out. Authority and power flows downward from the top of the administrative through delegation to individuals or constituent groups. But this is a description of an organization as it appears on paper. The description of an organization as it actually operates is known to be different, particularly when the organization is an educational system. The difference derives from the characteristics, interests, propensities, attitudes and motivations of the people who comprise the organization. In any large organization, systems of relationships among individuals and parts of the organization grow up to exercise authority which competes with that of the official structure. Leaders of unofficial subgroups spring up to challenge and often circumvent the authority of the special leadership. The recent growth in collective bargaining by teacher groups, and student demands for participation in administrative policy making are dramatic examples of the presence and strength of the informal organization. In fact, some writers predict that the functions of the school executive are likely to become less that of directing the organization and involve more a mediation between groups within it. In fact, the development of skills in managing conflict is probably a sine qua non for the preparation of educational leaders of the future. Leaders, therefore, must concern themselves not only with the formal organization which is essential to maintaining accountability for the organization's performance, but with the informal organization which comprises the sum total of human interests and actions involved in achieving the organization's purpose. The first emphasizes structure; the second recognizes dynamics.

Rensis Likert's study of highly effective work groups offers the following clues to the leaders of a "happy" organization:

1. The leader of a unit is the person who has primary responsibility for linking his work group to the rest of the organization.
2. The leader has full responsibility for the group's performance.
3. Although the leader has full responsibility, he does not try to make all the decisions. He develops the group into a unit which makes better decisions than he could alone; and through group decision-making each member identifies with the decision and becomes motivated to execute it.
4. The leader anticipates situations in which decisions cannot wait on group process and establishes with the group procedures for meeting such situations with their support.

5. The leader feels primarily responsible for establishing a "supportive atmosphere" in the group. A supportive atmosphere is one which builds and maintains the sense of personal worth and importance of each individual. Supportive behavior is to be encouraged in every group, but the leader must set the tone.
6. The leader minimizes his hierarchical position. He does not "pull rank", and he de-emphasizes status. He does this by listening well, being patient when progress in difficult situations is slow, accepting blame, even though sometimes unwarranted, not imposing his own decision, making his contributions in the form of questions, encouraging expression of viewpoints and asking others to help perform leadership functions.
7. The leader strengthens the group by seeing that problems which involve the group are dealt with by the group. He does not bypass them, nor does he ask the group to consider matters which are not the group's responsibility.
8. The leader represents his group effectively and presents their views, goals, and decisions to the rest of the organization. He also brings to his group the views, goals, and decisions of other parts of the organization.
9. The leader has the competence to handle the technical problems faced by his group and sees that technical knowledge is provided.
10. He tries to maintain in his group a keen sense of responsibility for achieving its goals and meeting its obligations to the larger organization.

Likert makes this suggestion about the selection of the leader. "His leadership is so evident that he would probably emerge as a leader in any unstructured situation. To increase the likelihood that persons of high leadership competence are selected, the organization is likely to use peer nominations and related methods in selecting group leaders."

The heavy emphasis upon interpersonal relations and the recognition of individual worth and importance, suggest that organizational leadership asks for the same set of characteristics that are considered to be the marks of an educated man. Shortages in the number and quality of educational leaders, then, are the measure of our inability to put together in sufficient numbers "the educated man."

The characteristics of the leader of the "hapless" organization are more briefly described. He is one who believes his organization chart, and entertains certain myths about his organization. He believes that the behavior of an organization is or ought to be wholly rational, and tries to solve the organization's problems by logic, formulae, and rigid discipline. He has implicit faith in tradition, orders and rules. He believes that all units of his organization must at all times be moving harmoniously toward a single goal. He neglects the fundamental fact that effective organizations cannot be impersonal; and, finally, he believes that bureaucratic administration is effective and efficient.

In summary, the leader of an effective organization today recognizes the principle of diffusion of authority and decision-making with centralization of

accountability. The flow of decisions and ideas throughout the organization bears no resemblance to the organization chart. Information is sought where the competence is; action is taken where the accountability lies. Job assignments and people change frequently. In fact, the leader is the man who captures for his organization the knowledge, energy, and skills of this total reservoir of human potential. He maximizes their sense of individuality, he promotes their advancement and welfare, and he himself grows with their contributions to the goals of his organization.

Educators have been prone to argue that leadership of educational institutions has important differences from the administration of other types of organizations. But in terms of its psychological demands upon the leaders, the difference seems to be only in the dimensions. In my opinion, the demands being placed upon the lives of the educational leaders are not surpassed in importance, scope, and severity by administrative positions in other spheres of public life. Leaders of educational organizations, particularly schools and colleges, have these special characteristics: a) Education does things to people as well as for them. Conflicts arise from the diverse viewpoints of children, parents, teachers, and the general public as to what is taught, and as to who shall make curricular decisions; b) School programs emphasize the development of critical thinking which leads sometimes to the challenge of cherished values. Competition develops between the home and school for the allegiance of children; c) Criteria for the evaluation of the educational outcome are vague, abstract, and of little value in demonstrating results; d) The professionalization of teaching and tenure systems tend to develop conflict between teachers and administrative groups, including boards of control. These special characteristics give further credence to the idea expressed earlier that the educational administration is becoming more and more a matter of coping with organized groups in various states of tension.

Organizations, like people, change with age. The leader who is charged with starting a new organization and nurturing it through its early stages has a different task and suffers different demands upon him than the man who takes the leadership of an organization that has been established and is operating smoothly. The older or aging organization which through drifting or perfunctory leadership has failed to move with the times makes a still different set of demands upon the leader who must revitalize its efforts. Leadership of an educational organization operating in a community that is apathetic, uninformed, or even hostile to the institution or its programs makes different demands than an organization situated in a supportive environment. So leadership depends upon what the situation is.

What the Situation Is

To this point, the discussion has been about the general characteristics of leaders and organizations. We turn now to an observation and analysis of what the situation is in the leadership needs of vocational education.

Vocational education programs are typically a part of an educational program system which has purposes larger than the purpose of education for employment. Preparation for satisfying earning through satisfying learning, however,

is an important need of the citizens of our society and should be a principal outcome of the educational system. The separation of vocational education and its purposes from the mainstream of educational programs has an historical background that does not need elaboration in this paper. Only recently the educational establishment, through Federal policy and regulation, has begun a serious reconsideration and reshaping of the role of education for employment in the total educational purpose and program. The situation poses new challenges and new opportunities for those who would give leadership to the purposes long nourished by the vocational education movement.

In terms of the organizational concepts discussed in this paper, vocational education has been a part of the informal organization of the educational establishment. It has attained in varying degrees a functional autonomy by reason of the special attention and support it has received from the Federal Government, an influence until recently almost completely denied to other segments of the educational purpose and program. It is not necessary to debate the reason or the wisdom of this policy to observe its effects upon the leadership of the educational enterprise considered as a whole. Similar effects are visible in many other parts of the educational system. Foundations, government agencies, influential community groups, through direct or indirect relationships with individuals or specified groups within the educational organization, bypass the normal and formal organizational structure and thus pose new problems and challenges to the official leadership. The continuing struggle by the vocational educator for recognition, status, and influence in an organization headed by an "academically-oriented" leader is exhibit A of the informal organization in operation. Vocational education operates as a part of the informal administrative structure of the total educational organization; but it has a formal administrative organization of its own.

The leadership of the official and formal organization needs, in my opinion, to perceive the stage of its development, to sense the changes in its supporting environment, and to cultivate a flexibility and responsiveness in its posture and programs. The whole system of education, as we have known it, is facing the twin dangers of organizational rigidity and obsolescent practice.

As pointed out earlier, the administrative function involves leadership in the initiation of ideas, programs, and proposals; and leadership in establishing an organization of people whose combined efforts are creative and productive.

Without denigrating the importance of either function, the current situation, in my opinion, cries for leadership in the realm of future-facing, viable ideas and programs. All educational leaders should remove their eyes from the organization as it now exists and look toward the organization that will be. The words of the old miller are relevant. "Do you think that its the mill that makes the water run?" Events that surround the educational establishment are moving fast. New ways and schemes for accomplishing the educational purpose are being discovered and being used. The educational establishment must not only respond to change; it must protect the public from aimless change. But change is one real fact of life to which all must learn to adjust.

The situation is psychologically ripe for the kinds of efforts which will lead the citizen to a reappraisal of the role of work in our society, the role of the

educational system in meeting the career needs of all individuals, and the role of the employing world in the utilization of the talents and skills of all the kinds of people we have. The situation is especially ripe for those who have long placed preparation for work in a central position in their own concepts of educational purposes.

The leadership of vocational education will encounter strong currents of opinion, attitude and prejudice based usually upon antipathies toward the "establishment" and reactions to misconceived or inadequate programs. There will be much support for a leadership, however, which emphasizes the obligation of the educational system to concern itself about the overwhelming majority of youth who make the transition from school to gainful employment between the ages of 16 and 20, the older citizen who must prepare for a new occupation in middle age, and the enterprising worker who wishes to speed his advancement in his chosen occupation through continued study and development. The new vocational education leader will talk about serving people, not preserving programs. He will be designing programs that are responsive to new needs, and are visibly productive in outcome. It is a large order, but the leader of tomorrow will be in the words of the Nevada rancher, "the guy who knows how to get the hay down where the cows are."

Bibliography*

1. Berelson, Bernard, and Steiner, Gary A. *Human Behavior: An Inventory of Scientific Findings*. Harcourt, Brace and World, Inc., 1964.
2. Flory, Charles D. (ed.). *Managers for Tomorrow*. New American Library of World Literature, New York, 1965.
3. Gouldner, Alvin W. *Studies in Leadership*. Harper and Bros., New York, 1950.
4. Kaufman, Carl B. *Man Incorporate*. Anchor Books, Garden City, New York, 1969.
5. Lane, Willard R.; Corwin, Ronald G.; and Monahan, William G. *Foundations of Educational Administration*. The MacMillan Company, New York, 1967.
6. Likert, Rensis. *New Patterns of Management*. McGraw-Hill Book Company, New York, 1961.
7. McGregor, Douglas. *The Professional Manager*. McGraw-Hill Book Company, New York, 1969.
8. Murphy, Gardner. *Personality: A Biosocial Approach to Origins and Structure*. Harper and Bros., New York, 1947.
9. Nadler, Gerald. *Work Systems Design: The Ideals Concept*. Richard D. Irwin, Inc., Homewood, Illinois, 1967.
10. National Society for Study of Education. *Behavioral Science and Educational Administration*. The 63rd Yearbook, University of Chicago Press, 1964.
11. Sears, Jesse B. *The Nature of the Administrative Process*. McGraw-Hill Book Company, New York, 1950.
12. Watson, Robert I., and Campbell, Donald T. (ed.). *History, Psychology and Science*. John Wiley and Sons, Inc., New York, 1963.

* This bibliography is included as submitted by the writer of this paper. References relating to all other sections of this report are listed in References.

IV

THE SOCIAL AND BEHAVIORAL SCIENCES

Concepts and procedures rooted in the social, political, and behavioral sciences are recognized as important elements in the roles and operational styles of educational leaders. State directors of vocational education, community college deans and presidents, local directors of vocational and technical education, and others, as previously listed in this report, are functioning in a dynamic field of complex and conflicting interpersonal relationships, organizational and personal goals, and confusing or partially defined work patterns. The psychological, social, economic, anthropological and political factors which influence the leader's ultimate success or failure are indeed staggering. Perhaps the super-leader who really grasps and applies concepts and strategies from all these and other fields of the social and behavioral sciences, as well as having an appropriate experience base within vocational and technical education, will never exist. Realistic attempts to provide a relevant mix of preparation in these areas, however, are long overdue.

The problems of identifying the appropriate concepts, strategies, perspectives, and methodologies from the social and behavioral disciplines, and applying them to graduate programs was one of the tasks to which this seminar was addressed. Seminar participants tended to agree on the need for special attention to the problem of determining such content and establishing mechanisms for providing it.

The time limitation of every graduate program implies the need for critical selections of material relating to the social and behavioral sciences. The massive amount of available material for potential inclusion led Culbertson (2) and others to analyze several possible approaches for selecting social science content for educational administrative preparatory programs. Culbertson presented the seminar with a discussion of the origin, development and implications of four relatively distinct perspectives with which social science content is usually identified. Table I itemizes the perspectives and includes a summary of the general characteristics of each. Culbertson's analysis warrants study and consideration by vocational and technical education graduate program planners because of: a) the differences in program objectives implied by the different perspectives, and b) the implications for organizing courses and other learning units for attainment of graduate program objectives.

At present, most of the social and behavioral science needs of graduate students are being attempted through selection of existing courses from the offerings in the various disciplines. Doctoral students in vocational and technical education are often scheduled into courses such as industrial sociology, social psychology and labor economics as part of their doctoral programs. It is not unusual for these courses to be intended as complementary or minor areas of expertise for the doctoral student. Programming such experience and content

Table I

PERSPECTIVES FOR VIEWING RELEVANCE: SOME GENERAL CHARACTERISTICS

General Perspectives for Viewing Relevance	*Beginning Points for Establishing Relevance*	*Some General Instructional Goals Used in Selecting Social Science Content*
Discipline-Based Relevance	Concepts, research findings, generalizations, and modes of inquiry in social science disciplines	1. To develop liberally educated persons through the study of social science disciplines. 2. To develop individuals who are sensitized to selected social science content in ways that enable them to understand significant dimensions of administration. 3. To develop individuals who understand social science research in educational settings which illuminates relationships among important variables affecting educational administration.
Theory-Based Relevance	Theories of administration and organization associated with the science of administration	1. To develop individuals who understand theories which apply to organizations and administration generally. 2. To develop individuals who understand theories which apply to educational organizations and administration specifically.
Problems-Based Relevance	Problems confronting or likely to confront educational administrators and leaders	1. To develop individuals who understand specific administrative problems and who can make effective decisions regarding these problems. 2. To develop individuals with general understanding of pervasive leadership problems in education and with better bases for resolving these problems. 3. To develop individuals with a capacity to anticipate future problems and with the skills to understand policy and program issues related to these problems.
Career-Based Relevance	Career objectives and functions of personnel preparing to use knowledge in educational administration in different settings and for different purposes	To develop individuals in specialized and differentiated preparatory programs who can pursue effectively different career routes in educational administration (e.g., research, development, or leadership).

into doctoral programs should be regarded as a highly significant contribution to the background of the graduate student in vocational and technical education. However, selecting such courses, as usually done by the adviser, the student, and his committee, is laden with problems. Does the student have the prerequisites for competing with specialists (other graduate students) in the disciplines selected? Are the courses organized and taught to provide maximum benefits for vocational and technical education graduate students? In many cases the graduate student wastes a great deal of time on a whole course when only a portion of it is relevant to his needs. Other students get large dosages of peripherally relevant content because the right courses and professors are not available on their campus.

The fields of economics, political science, sociology and psychology were singled out as areas of especially strong relationship to effective vocational and technical education leadership. A summary and synthesis of seminar events relating to these four fields is as follows.

Economics

Mangum (APPENDIX E) developed a paper for the seminar that outlined the economic understandings needed by vocational educators. Although focused largely on the vocational teacher and vocational student, four functions or purposes of economics for the vocational educator were listed. They are:

1. For his own use as a producer, consumer, citizen, and maker of educational policy.
2. As a general background for perspective in teaching vocational subjects.
3. To use vocational education courses as a vehicle for teaching general economics.
4. To teach vocational students the essential workings of a labor market as a component of education for employment.

Listed by Mangum as necessary for vocational teachers are: a) knowledge of the mysteries of public finance in general and the economics of public education in particular, b) knowledge of the uses and limitations of manpower projections in planning facilities and courses, and c) familiarity with the functioning and the institutions of labor markets. Based on these items (a through c), Mangum also stated that the primary determinant of the economic knowledge required of vocational leaders should be the economic knowledge needed by vocational students.

In an earlier paper Kaufman (6) listed some of the questions with which the decision-maker in vocational education should be concerned as including:

1. Does the investment in vocational education yield a return greater or lesser than an investment in an academic education, assuming equal costs?
2. Is it better to invest money in teacher training or in the physical facilities of the schools?
3. Which particular programs in vocational education yield a greater return?
4. What types of curricula yield a greater return, assuming equal costs?

5. What will be the demand for graduates with different types of education in 1975, 1980, or other future dates?
6. What types of skills are required in the future? What effect will technological change have on these skills? What new skills must be developed?

Kaufman recommended that the entire stress in the education of vocational and technical education leaders should be shifted from that of technique to that of a broad education in the social sciences. "Any educational leader in vocational education should have a full understanding of the dynamic character of our economy, and the impact this has on the development of curriculum, the training of teachers, etc., in the field of vocational education." (6)

Samson's additional points made in a critique of Mangum's paper are relevant to those of Kaufman; they are:

1. Vocational teachers are generally deficient in knowledge and expertise in economics, a situation that in-service training would do little to correct. Curricular materials which incorporate economic understandings could be developed for inclusion in vocational programs. Contact with the social science teachers of a school and curriculum designers in that field may be the most helpful single route in getting economics into the occupationally oriented student's high school program.
2. The nature of economics as it is taught in the universities today tends to be grossly oriented to the quantitative approach. Few universities have courses in the economics of education.
3. Prerequisites required for courses that are most applicable to vocational educators' needs and interests are such that they are seldom easily fit into graduate students' programs.
4. Few economists have any real understanding of what education for occupational competence involves, either in process or in procedure.
5. The administrative leader in vocational education must understand the social, economic, and political realities of our time. The economics of human resources is not enough.

Sociology

Although the short planning time for the seminar precluded commissioning a paper in the role of sociology in vocational and technical education leadership, the topic was included in the program. Topics, concepts, and methodological skills which were discussed for inclusion in advanced graduate programs in vocational and technical education included:

1. Occupational sociology

   The relevance of this area to the knowledge and role requirements of administrative leaders in vocational and technical education is obvious and direct. The meanings of work, occupational roles, unionization, occupational controls and rewards, and the relationships between occupations, family life and leisure all are probably important.

2. Formal organizations

   Nearly inseparable from occupational sociology, several concepts relating to complex organizations have a great deal of face validity for their relationship to the performance of most vocational and technical education leaders. Organizational change, organizational conflict, authority systems, and the distribution of social power should be examined for possible selection. Supervision and leadership patterns and tactics also rate strong consideration for inclusion in advanced graduate programs.

3. Social stratification

   Racial and ethnic relations, social mobility, and concepts and measures of class and status would appear to present valuable perspectives to nearly any administrator or other leader in the field.

4. Power structures

   Awareness of power structures in the nation would appear as a requirement for anyone administering an educational program. Study of pressure groups and community, regional, and national power structures can hardly be left to job experience alone in any local, state, or federal level professional position in vocational and technical education.

5. Demography and social change

   Urbanization, migration patterns, and fertility, age and sex ratios cannot be ignored in vocational education planning. All of these factors have particular importance in vocational program identification, facilities planning, and curriculum design.

Added to the topics listed in the five preceding points, the seminar's sociology consultant, Bernard Karsh, asked: "What is the importance of the increasing professionalization of work? What is the effect of work becoming increasingly bureaucratized and impersonal? How important is it that professionals are moving toward collective organizational systems? What is the significance of increasing rapidity of technological change?"

Psychology

The paper commissioned in psychology has been included as Chapter III in this report because of its appropriateness in relating leadership to the contemporary context in vocational and technical education. The psychological "competencies" presented in the paper would appear to communicate a great deal about the kind of individual required for leadership in this field.

Baldwin's reactions to Little's paper added several cogent points to the discussion. Baldwin recommended a more clinical approach than was felt to be intended by Little. While a relatively good analytical distinction was made by Little between requirements for leaders and nonleaders, we have yet to be able to do a good job at identifying these traits and characteristics when working with individual students and cases. Hence, it is more typically a clinical or one-to-one relationship in which we have to make judgments. A case-study, clinical approach to identifying leadership requirements may be in order.

Baldwin also suggested that in dealing with leadership or management roles, the ability to work with abstract concepts is of key importance, implying verbal ability as the primary consideration. Deficiencies in and high reliance upon verbal ability suggest a basic problem in undergraduate programs. Research design, statistics and other tools required in doctoral programs need some beginning emphasis in undergraduate and masters programs.

Political Science

Although given relatively little formal attention in the seminar discussions, political science was acknowledged for its obvious importance in providing the vocational and technical education leader with a very necessary perspective and procedural know-how for dealing with the different agencies, levels, and groups in the organizations within which his success will be determined. An unpublished paper by Minar (8) suggested some contributions that the political science discipline might make in the training of state vocational educational leadership personnel. Although aimed at state leadership only, Minar identified several "subject matters" which represent relevant considerations for inclusion. They are summarized herein because of their face validity for vocational and technical education leadership at any level.

1. The social and cultural basis of politics

   Political forms and policy are rooted in the structure of the society they serve and changes in social structure can be expected to have an impact on politics. Perhaps the critical broad concept in this field is urbanization, a term summarizing a variety of social changes that characterize human life in the modern world.

2. Modes of political actions

   The operation of the political system is filled by the individual attitudes and group demands that emanate from the society.

3. Changing forces in educational politics

   Trainees (potential leaders) should be engaged in the analysis of the politics of education on both state and local levels.

4. Institutions and relationships in the government of education

   A survey of institutional patterns in the government of education should include discussion of policy making bodies that are specialized to the educational field and those responsible for more general policy.

5. Political factors in decision-making

   The discussion of political institutions might well be followed by a fairly abstract analysis of decision-making processes. Some aspects of decision-making will doubtless be discussed in other parts of the training program, for the subject has psychological, economic, and management science dimensions, among others. Emphasis would be put on political aspects of the process, especially as they are felt in governmental units.

6. The internal political life of public organizations

   Although it is likely that specific management techniques will be covered elsewhere, some attention should be given to the political aspects of organizational life. These are of two kinds, those having to do with the ways the public status of public organizations impinges on their operation, and those having to do with the political side of any organization.

7. Techniques for information gathering

   Data collection and analysis in the area of political science are an essential accompaniment of the preceding six items. Familiarization with the procedures and products of research was suggested for most vocational and technical education administrators rather than in-depth technical competence as would be necessary for a researcher.

Recommendations

The problems related to the identification of social and behavioral science content for incorporation into our advanced graduate education programs are cause for a great deal of planning and development. The recommendations evolved in the seminar are courses of action which The Center for Vocational and Technical Education, professional organizations, and university staffs in vocational and technical education might use as guides to future development to coordination of advanced graduate programs in vocational and technical education.

The small group sessions of the seminar provided a springboard for a variety of suggestions for direction and the solution of problems relating to the identification and teaching of content from the social and behavioral sciences. The following eight recommendations are offered as applicable to and including social and behavioral sciences (such as anthropology) which were not formally included in this seminar.

1. Increase the attention given to analysis of the competencies and aptitudes of individual students, particularly at the masters and doctoral levels, as a step toward tailoring programs to complement existing strengths.
2. Commission selected group(s) of social and behavioral scientists to develop lists of concepts currently relevant to the vocational and technical education leadership function. Such a group obviously cannot function by itself, but must be indoctrinated or thoroughly acquainted with the responsibilities and functions of leaders in the field. The group must work closely with knowledgeable vocational educators in developing the lists
2. Increase the attention given to providing appropriate social and behavioral science preparation for vocational and technical education majors at the undergraduate level.
4. Entice additional numbers of competent sociologists, psychologists, economists, anthropologists, and other professionals from the related disciplines to affiliate with vocational and technical education.

5. Build expertise in other disciplines in present vocational and technical education leaders to the extent practicable. This suggests in-service and preservice education through undergraduate, masters, and doctoral as well as special non-degree programs.
6. Organize seminars and conferences for continuing communication and for identification of content and establishment of more effective procedures for teaching social and behavioral sciences to potential vocational and technical education leaders.
7. Study university departmental and other organizational structures for handling content from the related disciplines. Joint appointments across disciplines and departments, interdepartmental course planning, and other arrangements should be considered.
8. Explore the feasibility of inter-institutional cooperation in providing appropriate experience in the related disciplines such as arrangements for traveling professors, traveling scholars, and other possibilities as described in the following section.

V

INTER-INSTITUTIONAL COOPERATION

A variety of organizations have been established to promote, coordinate, or control cooperative activities among member universities, colleges, and departments within them. The Committee on Inter-institutional Cooperation, the Western States Compact, the Southern Regional Education Board, and the Inter-University Consortium for Political Research are a few examples of university based organizations with special missions in the realm of inter-institutional cooperation. Although the specific purposes and structures of such organizations are divergent, all appear to be concerned with increasing the accessibility to and the use of critical resources to better serve their member clientele. Through these organizations, graduate students can take advantage of the special strengths of another school; a state with no medical school can utilize the resources of another; an archive of critical materials is made available to researchers throughout a discipline. Critical and usually expensive facilities and staff can be supported cooperatively, and best of all, can substantially increase the number of persons benefited.

A seminar objective on inter-institutional cooperation was included because of the obvious possibilities for improvement of graduate education through greater cooperation across institutions which offer advanced preparation in vocational and technical education. As the desire for more comprehensive preparation in vocational and technical education becomes more prevalent, the likelihood of a given university having the appropriate program and staff resources diminishes. Hence, inter-institutional arrangements for taking advantage of the peculiar strengths of each university warrant consideration as a means of improving graduate education in vocational and technical education.

Recommendations

The suggestions discussed in the seminar have been synthesized and summarized as follows:

1. Compile a catalogue of the unique features, staff, and facilities of universities which have graduate programs in vocational and technical education.
2. Bring social and behavioral scientists together periodically to discuss concepts and content most relevant to vocational and technical education (see item 8, page 30).
3. The Center for Vocational and Technical Education (or another agency) should purchase the time of outstanding vocational and technical education leaders and other specialists for participation in leadership programs on a continuing basis. These leaders would be utilized in pro-

grams to: a) better their own qualifications as leaders, and b) prepare other leaders.

4. Develop an organizational mechanism for cataloging, storing, and coordinating the diffusion of video tape presentations, simulation training materials and other leadership preparation materials and models.
5. Arrange and provide financial support for the use of telelectures, video tape presentations, and other appropriate means and aids in the conduct of special leadership preparation programs by universities and local institutions especially.
6. Extend inter-institutional arrangements for recognition of graduate credit.
7. Establish organizational mechanisms for and encourage the exchange of outstanding staff members among institutions.
8. Develop newsletters and other media for dissemination of information about research, special programs, and other resources found to be beneficial to leadership development.
9. Give increased attention to identifying outstanding undergraduates as potential leaders and to consequent adjustment of undergraduate preparation.
10. Arrange financial assistance and graduate credit for students attending and participating in selected national, state, and regional conferences and seminars.

VI

PROBLEMS AND SUMMARIZING REMARKS

A list of problems in graduate vocational and technical education was developed to draw attention to the array of topics and areas in need of future action. Hence, the 12 categories of problems in this section, and the questions included with each, are offered as a starting point for further organized activity in planning and coordinating advanced graduate programs for vocational and technical education leadership positions across the nation. They represent a limited and post-hoc attempt to provide guidelines or directions for future action. The problems are a product of the seminar transcriptions, commissioned papers, and inputs from seminar staff.

Problems

1. Personality characteristics, roles, and responsibilities of vocational and technical education leaders
   a. Which state, university, local, and other positions should become the focus of leadership preparation?
   b. What are the main competencies, roles, and responsibilities expected in the key leadership positions in vocational and technical education?
   c. How do vocational and technical education leadership styles and personality characteristics differ from those in other leadership positions in education? What elements do they have in common?
   d. How may potential leaders for vocational and technical education programs be identified?
   e. What self images do leaders of vocational and technical education have and what are their perceptions of leaders of other educational programs?
2. Status of vocational and technical education programs and staff
   a. What are the images projected by vocational and technical education programs and what factors have contributed to these images?
   b. How should leaders function to improve the image of vocational and technical education?
3. Minority populations to be served
   a. What are the social and cultural characteristics of minority groups?
   b. What differences prevail with respect to attitudes, value patterns, and self concept? What learning disabilities are common? What strengths are present?
   c. How may educational leadership be developed within minority popula-

d. What is the economic status of minority groups and what are their social, economic and mobility patterns? What constitutes the feasibility of the potential for the development of new patterns?

4. Financing programs
   a. How can leaders in vocational and technical education be sure they are getting a reasonable share of the available resources for their programs? How can they work with leaders of "general education" programs to avoid conflicts and competition for the same dollars?
   b. Are there political strategies which might be employed in building financial support which would be uniquely appropriate for vocational and technical education programs?
   c. How are financial decisions regarding vocational and technical education made at the local, state and federal levels? Who makes these decisions and who can have an influence on these decisions?
   d. How may cost benefit and systems analysis or other techniques be used in ascertaining the existing and potential economic value of vocational and technical education? What are feasible alternatives to present ways of providing vocational and technical education?

5. Planning and evaluating vocational and technical staff, programs, and facilities
   a. To what extent do vocational and technical education leaders need understanding and facility in program and staff evaluation techniques and strategies?
   b. What management systems or strategies are appropriate for use by vocational and technical education leaders? To what extent does each kind of vocational and technical education leader need understanding and facility with such systems?
   c. What are the barriers to improving planning and evaluation in vocational and technical education?
   d. What are the long-range effects of vocational and technical education for students?
   e. How can planning policies and strategies lead to a well-defined set of goals and objectives for long-term use? How can vocational and technical education program planning be articulated with manpower and social needs?
   f. How does the vocational education leader identify and engage representatives of minority political groups in program planning and development?

6. Use of research methodology and results by vocational and technical education leaders
   a. To what extent does each of the several kinds of leaders in vocational and technical education need competence and knowledge of research design and methodology?

b. What are the responsibilities of vocational and technical education leaders in the application of research findings and results?

c. What groups and individuals should be involved in identification of needed research and priorities?

7. Interagency relationships and functions

a. What communication patterns, legislative processes, and related activities prevail between state departments of education, state advisory councils, universities, local school districts, and other government agencies active in vocational and technical education?

b. What effect have recent legislative changes and program expansions had on these interagency relationships and activities? Which of these activities are vital to vocational and technical program planning, public support, and ultimate success?

8. Student selection, admission, and retention

a. What admissions and related policies and standards are needed to assure production of quality leaders?

b. How should general entrance requirements and related standards apply to leadership candidates from disadvantaged groups?

c. Should the general entrance requirements for graduate education be different for vocational and technical education than for other graduate education programs?

9. Relevance of the social and behavioral sciences

a. What concepts (and content) from the social and behavioral sciences are important to the preparation of leaders in vocational and technical education? Can interdepartmental, interdisciplinary staff arrangements within a university provide all or most of such preparation?

b. What strategies can be developed and effectively utilized to provide continuing identification and selection of concepts and content most crucial to the production of vocational and technical education leaders?

c. What are the implications for social and behavioral sciences as preparation for potential leadership candidates among vocational and technical undergraduates?

d. What organizational structures can be modified or initiated to facilitate the programming and teaching of crucial elements from the social and behavioral sciences?

e. Does a department develop its own social and behavioral scientists, or does it secure them and orient them to vocational and technical education after their employment?

f. How may additional numbers of competent social and behavioral scientists be enticed to contribute directly to advanced graduate vocational and technical education preparation?

10. A common core of graduate vocational and technical education
    a. What common philosophy of education can be developed and utilized to unify the various program objectives, methods, and content in all levels of staff development for vocational and technical education?
    b. What concepts and content across the individual service areas are important as comprehensive leadership preparation? What unique elements among the service areas warrant consideration as leadership preparation?
    c. What organizational structures can best serve to provide leadership preparation for comprehensive vocational and technical education?

11. Inter- and intra-institutional cooperation
    a. What mechanisms best facilitate intra-institutional cooperation in graduate program planning and operation?
    b. What mechanisms facilitate inter-institutional cooperation for graduate program design and improvement?
    c. What unique features in each university are most appropriate for cooperative utilization by all universities and institutions operating graduate preparation for leadership in vocational and technical education?
    d. What agencies or organizations should be encouraged or supported financially to sponsor cooperative activities such as seminars and conferences relating to graduate vocational and technical education?
    e. How can financial assistance and graduate credit be arranged to encourage graduate program operation utilizing facilities and staffs of other institutions?

12. Other Graduate Program Components
    a. How is the internship appropriate in the preparation of vocational and technical leaders? What are the essential internship experiences for vocational and technical education leadership?
    b. How may in-service leadership preparation best be provided by a university department or division of vocational and technical education? What are the responsibilities and relationships between state division, local, and university staffs regarding advanced preparation for leadership?

Summarizing Remarks

Comprehensive Vocational and Technical Education

The idea of advanced graduate education designed to relate to or serve all the service areas met with little or no resistance from the seminar participants. The participants certainly needed no explanation of the breadth of the roles and responsibilities of administrative leaders in the field. State and local directors of vocational and technical education, community college deans of occupational studies, and most university teacher education personnel find that many of their professional activities involve interaction and responsibilities which extend into vocational education areas well beyond any one individual's initial background in a service area.

The pressure for realignment of social values and political structures in our society is especially apparent in public education. Hence, goals and means of attaining them are changing in vocational and technical education as they are in the total educational picture. The vocational and technical education "leader," whatever his position, is now forced to relate his total function to fulfilling the needs of people. In accomplishing this feat the service areas, although expedient and applicable in local operation and administration of secondary and post-high school vocational programs, retain a considerably lesser functional relationship to the roles and responsibilities of most leaders whose decisions must relate to all or several of the service areas simultaneously.

Comprehensive graduate vocational and technical education preparation is reasonably well developed in some universities. One example discussed by seminar participants, Rutgers University, has its doctoral program rooted in the social and behavioral sciences rather than in any single area within vocational education. Other universities are reorganizing to pull together staff and programs of several service areas into a single department or division. The University of Missouri and the University of Minnesota were discussed by participants as examples of such recent reorganizations.

It must be stated at this point that placing the various service areas within a single administrative organization will not necessarily bring staff together in their work in graduate vocational and technical education. Without parallel efforts to ameliorate basic differences in philosophies of vocational education, especially relating to staff development, it may serve to cause increased friction over professional and personal differences. Faculty within newly organized departments or divisions of vocational and technical education must clearly define commonalities in content, approach, and methodology, and must agree on how to staff comprehensive vocational and technical education courses and activities. The revised organization could otherwise become an ineffective federation of separate interests.

A core of advanced graduate level vocational and technical education appears to be an immediate necessity for development. It would appear that common areas of interest and content could be identified, especially in areas such as research, evaluation, philosophy of vocational and technical education, curriculum design, and administration and supervision. Immediate development through formal research, working conferences, and a variety of developmental activities should be given high priority.

Committee on Graduate Vocational and Technical Education

Improved communication among university staffs involved in advanced graduate education planning and operation is a necessity. A knowledgeable group of professionals should be organized as a committee to establish and review policies and priorities relating to future research, development, training, and other possible activities in advanced graduate vocational and technical education. In short, communication and planning by a qualified group of university, state, and other interested parties would be intended. The Center for Vocational and Technical Education, The Ohio State University, was suggested and dis-

cussed as an appropriate sponsor or coordinating agency for this activity. Such a group could become a significant and desirable catalyst for progress in graduate education in the field.

Closing Remarks

The purpose of this seminar was to define the problems of advanced graduate preparation for leadership in vocational and technical education and to propose strategies for solution. It was based upon the feelings of professionals that the present university graduate program designers and staffs are in need of additional focus, perspective, and mechanisms which would enable them to fulfill a critical obligation to relate program requirements and offerings most effectively to the unique leadership needs of the field. While progress in graduate program development can be cited in many universities, it is the feeling of the writer that progress to date has been limited to individual departmental staff efforts in a few universities. The expanded and rapidly changing role of vocational and technical education in our society implies increased, more complex demands from the leadership at every level. It is hoped that the recommendations herein will encourage the formulation and attainment of plans for future action in graduate vocational and technical education.

REFERENCES

1. Culbertson, Jack A. "The Preparation of Administrators." Chapter XIV of *Behavioral Science and Educational Administration*. 63rd Yearbook of the National Society for the Study of Education. University of Chicago Press, Chicago, Illinois, 1964.
2. Culbertson, Jack A. "The Social Sciences and the Issue of Relevance in Preparation." Chapter I of *The Social Sciences and Administrator Preparation*. In Press.
3. Fiedler, Fred E. *Leadership and Organizational Performance*. Paper prepared for the Annual Personnel Conference of the American Management Association, New York, February 7, 1967.
4. Haines, Peter G. "Using the Clinical School Concept as the Core of Teacher Preparation and Development of Professional Personnel." *The Upper Midwest Vocational Teacher Education Conference*. May 13-15, 1968, University of Minnesota, Minneapolis.
5. Katz, Daniel. "A Doctoral Program in Vocational Education as a Behavioral Science." *The Advanced Degree and Vocational-Technical Education Leadership*. Rutgers, The State University, New Brunswick, New Jersey, 1966.
6. Kaufman, Jacob. "The Role of Economics in the Training of Leaders in the Field of Vocational and Technical Education." *The Advanced Degree and Vocational-Technical Education Leadership*. Rutgers, The State University, New Brunswick, New Jersey, 1966.
7. Lipham, James A. "Leadership and Administration." Chapter VI of *Behavioral Science and Educational Administration*. 63rd Yearbook of the National Society for the Study of Education. University of Chicago Press, Chicago, Illinois, 1964.
8. Minar, David W. *Some Contributions of Political Science to the Training of Administrators in Vocational Education*. Paper prepared for The Center for Vocational and Technical Education, Columbus, Ohio, May 15, 1968.
9. Schaefer, Carl J., and O'Brien, John L. *The Advanced Degree and Vocational-Technical Education Leadership*. Rutgers, The State University, New Brunswick, New Jersey, 1966.
10. Striner, Herbert E. "Economics and Vocational Teacher Education." *Vocational-Technical Teacher Education: National Seminar Proceedings*. Leadership 15. The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio, February 1968.
11. University Council for Educational Administration. *Projects to Advance Knowledge of Educational Administration through Inter-Institutional Research Projects and Professor Interest Group Activities*. (Goal V). Unpublished paper, February 14, 1969.
12. Ward, Darrell L. *Vocational Education Competencies Identified for Local Leaders of Occupational Education*. Unpublished doctoral thesis, Oregon State University, Corvallis, 1970.

APPENDICES

APPENDIX A

Graduate Education Seminar in Vocational-Technical Education

September 29 through October 2, 1969

Participants

Thomas Baldwin, Associate Professor
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APPENDIX B

Graduate Seminar in Vocational-Technical Education

September 29 through October 2, 1969

List of Consultants

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Jack Culbertson
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APPENDIX C

The Social Sciences and the Issue of Relevance in Preparation

JACK CULBERTSON AND MARK SHIBLE*

"There are two different approaches to establishing a 'logical connection' between social science content and administrator preparation and practice. One is to start with social science concepts and modes of inquiry and then to establish their connections with administrator practice and preparation. The other approach is to start with dimensions of practice in educational administration and then identify or develop social science content which can illuminate these dimensions. Admittedly, the distinction between the two approaches is somewhat oversimplified in that the movement from content to practice and vice versa is not strictly a one-way process. There is inevitably a moving back and forth between practice and content in the reaching of decisions about relevance. However, the two approaches do represent important and different points to begin to establish relevance. The distinction is also pertinent to the four perspectives used in this book."

"Table I provides summary information highlighting some of the differences in the four perspectives for viewing relevance. However, it should be clear that while each of the four perspectives has unique characteristics, there is some overlap between and among them. It is also clear that universities in making program and instructional decisions about social science content typically use more than one perspective during the process. At given points in the process, one perspective may predominate while at some other point a different one will be used. Thus, the perspective used in curriculum design by staff may differ from the one used in planning a program for a given student or the perspective used in one professor's seminar may differ from that used by another professor. In spite of such limitations, however, the four perspectives offer bases for analyzing relevance and a heuristic means for assessing program decisions and values."

* All excerpts included herein are quoted from Chapter 1, *The Social Sciences and Administrator Preparation*, book by Dr. Culbertson, in press at this date.

APPENDIX D

Staff Development in Vocational Education

RUPERT N. EVANS*

If we ask ourselves about the relative importance of the things that money can buy or create in vocational education, we quickly get down to buildings, curriculum, students and staff. Of these, I vote for staff as having crucial importance. Good schools have been operated in poor buildings or no buildings at all. A good staff will create a good curriculum and will attract and retain good students. But without a capable staff you simply do not have a school.

Yet staff development rates are one of our lowest priorities. Many states have carved up their vocational education teacher education programs, awarding the home economics teacher education program to Institution X, the trade and industrial education program to Institution Y, and distributive education teacher education to Institution Z. This may be good politics, but it does not make for good teacher education. Most states have teacher education programs which have been essentially unchanged since the 1920's.

Equally bad is the situation with regard to certification of teachers. Vocational education is the only field which will give you a teacher's certificate only if you have first obtained a job. A possible justification for this is what has been called (unfairly) "the trade union protection syndrome." Trade unions (and other professional associations) have taken steps to prevent flooding the labor market with a surplus of competitors for the few jobs that exist. When there is a surplus of job vacancies, many types of personnel are welcomed to the fold. But labor unions have provided a regular flow of competent individuals through the apprenticeship program. These people get journeyman cards even if there is no surplus of jobs. Not so in vocational education. We have wanted to keep things tight and cozy.

Certification is not the only arena in which this tendency to restrict entrance to teaching is apparent. The Vocational Education Amendments of 1968 authorize substantial sums for the preparation of teachers and other leadership personnel in vocational education. Yet these authorizations have never been funded because our administrators and professional organizations put teacher education at the bottom instead of the top of the priority scale. Vocational education alone, among the important fields of teacher shortage in the United States, has virtually no fellowship or scholarship programs of substantial character. Through the generosity of the Bureau of Educational Personnel Development, a number of short-term summer institutes have been funded, but these are primarily for in-service teacher education. They serve the "in-group" and forget about the vast numbers of positions that are bound to be filled by relatively unqualified people in the absence of a very large preservice training program.

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Cycles of Demand

How do we explain this reluctance to plunge boldly into the creation of new preservice teacher education programs? One explanation comes from our history, a history of alternating cycles of rapid expansion followed by long periods of stagnation. Once each generation since 1917 the nation has suddenly awakened to the fact that it is critically short of skilled manpower. This has resulted in frenzied activity by the inadequate number of administrators and teachers of vocational education who are available. All of their energies go into recruitment of teachers from every possible source, buying equipment, recruiting students and doing everything else that is needed to spend the vast new sums of money which become available. In short, when we need to develop leadership, we are too busy developing programs to have time for leadership development.

These periods of frenzied activity are followed by long periods of time in which the nation feels that it has an adequate supply of skilled manpower. This leads to pressures to cut federal, state and local funds for vocational education. In these long lulls, when we have adequate time for leadership development, we instead spent all of our energy on maintaining the financial status quo. Old leaders die or retire, and are not replaced because we are reluctant to train people for jobs which don't exist.

This system worked reasonably well in the past, because we were able to develop leaders through on-the-job training. In some organizations, this is known as "moving through the chairs." A reasonably competent individual would begin as a teacher, move to a minor position in the state department of vocational education, then to a minor position in the U.S. Office of Education, return to the local school as an administrator, move to a more responsible position in the state office, and perhaps return to the U.S. Office of Education in a key position. This succession of experiences gave people a breadth of understanding that enabled them to function reasonably well. It was highly inbred, but it worked.

This system of OJT is dead. Salaries at the local school level are so high that individuals cannot afford to move to most state departments of vocational education. While salaries in the U.S. Office of Education are competitive, a succession of commissioners of education who have not believed in vocational education have succeeded in cutting the number of positions available so that they are filled almost entirely by long time civil servants who are not about to move over to make way for newcomers. The net effect is that a person starts as a teacher, and perhaps moves to be a local director of vocational education, without knowledge of anything outside his own school district.

Are Cycles of Expansion and Contraction Ending?

Fortunately, at the same time that our old system of on-the-job training is breaking down, it appears that we are reaching the end of cyclical expansion and contraction of vocational education. The old cycles were based on the assumption that vocational education was designed to meet national shortages of skilled manpower. In 1963 Congress redefined the goals of vocational education and reinforced this new definition in the Vocational Amendments of 1968. Our new task is to develop people and to insure that they have the necessary

skills and attitudes to be employable. Undoubtedly there will still be pressures to expand and contract the program in accordance with skilled manpower shortages, but people who need training are going to be available year after year. In our new role, we have an important role so long as we succeed in meeting the needs of people. If cycles of expansion and contraction are leveled out, we have no longer an excuse for not preparing leaders on a regular, continuing basis. It is the business of this conference and others like it throughout the nation to decide the most effective ways of meeting this challenge.

Vocational Teacher Education in Europe

We are not the only ones who have problems in educating teachers. In September 1964, the International Vocational Training Information and Research Center of the International Labour Office, Geneva, Switzerland, published a volume entitled "Training of Vocational Teachers." This document reported on a conference involving 12 European countries. They noted that vocational education was expanding rapidly, was moving away from premature specialization and was recognizing that knowledge had now become as important as manipulative skill. As is our case, they noted that there was a great shortage of qualified instructors.

They identified three groups of countries. One group recruits teachers who have acquired skill through long experience in employment. (This is similar to what we do in trade and industrial education and distributive education.)

The second group of countries sees teacher training as a continuation of the vocational training system, with able students continuing on and becoming teachers. (This is the system used in much of our armed forces technical training, and may be becoming a pattern for post-secondary school technical education.)

The third group of countries sees teacher training for vocational education as being parallel to the training of teachers for general education. (This is similar to our teacher education programs in agriculture and home economics.)

One inevitably comes to the conclusion that we are several countries in one. Up to this point, it has been nonsense to talk about the philosophy of preparing vocational education of teachers and administrators in this country. We have several contradictory philosophies and must resolve these philosophical problems before we can talk knowledgeably of a single method of preparing staff for vocational and technical education.

Modest Proposals for the Improvement of Staffing Vocational Education

I propose six steps for improving the quality of staffing in vocational education:

1. Base pay on merit and on supply and demand, rather than on hours of education and seniority.
2. Eliminate certification, if it cannot be substantially modified.
3. Limit teacher tenure to 10 years, with renewal or notification of nonrenewal near the end of this period.

4. End discrimination by sex in the employment of teachers.
5. Make preservice education the primary responsibility of the university, with substantial involvement of local and state education agencies.
6. Make in-service teacher education the primary responsibility of the local educational agency, with substantial involvement of universities and state departments of education.

1. Pay based on merit and on supply and demand rather than hours of education and seniority.

On the average (and of course there are frequent exceptions) teachers who have served five years are at peak effectiveness. Teachers with less experience and teachers with more experience are, on the average, considerably less effective. No one knows for sure whether this is caused by some of the more effective teachers leaving after a few years of teaching or whether it is a matter of stagnation. Certainly there is no evidence to suggest that the longer a teacher has taught, the more he should be paid. Similarly, we know that there is absolutely no relationship between the number of hours of education courses a teacher has had and his effectiveness. Personally, I believe that teacher education does have positive effects, or I would choose some other profession. It is clear, however, that many people who are completely inadequate as teachers return again and again for additional education courses in an attempt to have something that allows them to feel superior. Under our present salary structure, such insecure individuals are rewarded with additional salary increments. The objection may be raised that merit pay has been thoroughly explored and discarded on the basis that judgments of merit cannot be made accurately. I can only say that I have been employed for some years in an institution which does make such decisions and has made them for over a hundred years. I know of no one who would disagree that the top and the bottom five percent or so of teachers can clearly be identified. It is my contention that they should be rewarded in accord with this identification.

Equally important is the matter of pay based on supply and demand. I recently returned from a community college which had an outstanding program in industrial electronics. Graduates of this two-year program regularly started employment at salaries above those earned by the majority of the junior college faculty. Salaries of the two instructors were some $2,000 less than they had received in industrial employment, but were the highest two salaries on the whole junior college teaching payroll. This engendered a considerable amount of hostility on the part of some of the academic teachers, but I maintain that the decision of the college administration was exactly correct. To attempt to employ teachers of all types at the same salary schedule would insure that all teachers from fields which are in short supply will be less competent than those teachers who are in plentiful supply. I see no justification whatsoever for providing lower quality education to those students who happen to want to specialize in areas where they are badly needed while at the same time providing superior education for people in fields where they are less in demand.

2. End certification if it cannot be substantially modified.

Recently I talked to a local director of vocational education who said to me "I can employ better teachers for my evening school staff than I can for my day school staff solely because the evening school staff does not have to be certified." This is a sad commentary on the state of certification. College teachers are not certificated. Because there are many poor teachers in college, some people have suggested that certification would be in order for them. Why are they poor teachers? Almost invariably it is because they do not know how to teach.

At the secondary school level, where certification is almost universal, we also have many poor teachers. They may be poor because they do not know how to teach, because they do not know what it is that they are supposed to teach, or both. Few college teachers are poor because they do not know their subject matter.

Certification, which is supposed to attest both to subject matter and instructional competence has obviously failed in many cases.

Two possible improvements suggest themselves.

a. Have colleges certify teachers upon graduation, have the effectiveness of these teachers reviewed periodically by the state, and take away college authority to certify teachers in a particular field if the graduates of that institution fail to perform satisfactorily.

b. Instead of certification, have the state approve local proposals, program by program, with qualifications of the instructors being part of the package. Have this followed by a post-audit by the state with termination of program approval for poor performance.

3. Limit teacher tenure to 10 years with notification of renewal or non-renewal near the end of this period.

Teacher tenure has had many worthwhile effects. Unlimited teacher tenure has had many bad effects as well. A requirement for renewal of tenure at the end of 10 years would force a periodic look at faculty competence. At present, we look at faculty competence only at the time of hiring and at the end of a short probationary period. Unfortunately, too many teachers stop professional improvement at the end of their probationary period, though they may go on teaching for 40 more years. Stated negatively, if vocational education is to survive, it must find some way of getting rid of its deadwood.

To put it in a more positive sense, it should be the responsibility of every administrator to build, in cooperation with each staff member, an individualized staff development plan covering at least five years. If it works, the teacher should be retained. If it does not work, he should be released.

One way of insuring that there will be staff development is to use as a key criterion for employment of any administrator, his past record of developing staff members. Many industries have a standing rule that no administrator can be promoted unless he has developed someone who is capable of taking his place. This does not mean that a person who was developed as a replacement would be chosen as the successor, but it does emphasize the role of the ad-

ministrator as a developer of staff, and refuses promotion to those who fail to meet it.

4. End discrimination by sex in the employment of teachers.

In vocational and technical education, men teach men and women teach women. There are a few exceptions, mostly in the clerical and sales fields, but the general statement certainly holds. Indeed, there are some who go so far as to say that all instruction in "women's occupations" should be provided by women. And the occasional female teacher of drafting can testify to the discrimination she faces in professional meetings of drafting teachers.

We need to take special steps to recruit teachers (and students) of the minority sex in each of our vocational programs, for exactly the same reason that we need to recruit black students and teachers in predominantly white institutions.

5. Preservice education should be the primary responsibility of the university with close cooperation of local and state education agencies.

Many excellent ideas for an effective preservice education program will be found in *Teachers for the Real World,* written by my colleague, B. O. Smith, and published by the American Association of Colleges for Teacher Education in February 1969. This is a delightful book. He has a section on "Why Teachers Drop Out." Here he mentions our blind confidence in the value of pooling personal experiences in group discussion in teacher education and suggests that this is valuable only for therapy. He suggests that student teaching should be eliminated, and replaced by a carefully structured series of simulated and real experience, followed by a genuine internship, under supervision, which avoids the make believe character of much of our student teaching. He has a delightful section on "Bringing the Teacher Trainer Up-to-date," which would be applicable to many of the people here.

Throughout the book Professor Smith emphasizes close relationships between the university and the local educational agency, and with the noneducational community. When I read his section on "Differentiated Teacher Roles" with his suggestion that teacher aides could be recruited from the community, I thought of the excellent situation in Edmonton, Alberta, where an educational specialist works with four craftsmen to provide the best possible instruction for technical students in the printing trades. Is not this using teacher aides from the community in an excellent pattern of differentiated staffing?

Universities are set up for and can provide excellent professional training. They can do this job better than institutions which are designed for other purposes, but they can perform effectively only if they work closely with the groups which use their products.

6. In-service education should be the primary responsibility of the local education agency with close cooperation of universities and state departments of education.

The most effective pattern of in-service education is one which involves employment of the teacher for 12 months with summers devoted to building strengths and remedying weaknesses. Depending upon the long-term professional

development plan which has been prepared for each teacher, summers may be spent in employment, in curriculum development, in further education, or in a variety of other needed activities. Every professional development plan should include the opportunity to visit other schools for brief periods of time. It is amazing how parochial most teachers really are. They have no idea of the strengths and weaknesses of programs in comparable schools in other communities, and indeed have little knowledge of employment opportunities outside their own community. Another highly desirable activity would be a regular exchange program with employers, not only to upgrade the knowledges of the regular teacher, but to acquaint key individuals in business and industry with what is actually going on in the schools.

A third major feature of each professional development package should be attendance at and participation in professional meetings. There is a tendency to have the same people year after year on the same programs. Half of the participants might well be required to be new each year. This would not only improve the competence of the people participating, but it would add a freshness to professional meetings that is badly needed.

Summary

In this paper I have attempted to describe some of the reasons why we have placed low priority on staff development in vocational and technical education, have indicated that the cyclical fluctuation and demand for staff is apt to be minimized by a new set of goals for our field, and have indicated some ways in which staff development might be enhanced. It is my hope that this conference will provide further suggestions of ways in which functional programs of leadership can be provided. Nothing else should have as high priority in vocational technical education as this.

APPENDIX E

The Economic Knowledge of Vocational Educaters: What Is Needed and How to Get It

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A task force of prominent economists appointed by the American Economic Association undertook at the beginning of this decade to determine what every high school student should know about economics. The list of essentials included at least a rudimentary understanding of:

1. The nature of a private enterprise economy.
2. The role of markets and prices in the allocation of resources.
3. The various roles of individuals and institutions as participants in the economic system.
4. The conservation and development of natural resources.
5. The principle of diminishing returns.
6. The role and determinants of supply and demand.
7. The need for and the administration of antimonopoly policy.
8. The relationships among savings, investment, and capital formation.
9. The role of government in the economic system.
10. The purposes and nature of the tax system.
11. The nature and role of money and the banking system.
12. The causes of and the measures used for controlling recessions and inflation.
13. National income accounts.
14. The public debt.
15. The workings of securities markets.
16. Income distribution patterns in the U.S.
17. The role of productivity in determining real incomes.
18. The economic role of labor unions.
19. The social security system.
20. U.S. farm policies.
21. International economic relations.
22. Balance of trade, balance of payments, and the significance of an outflow of gold.

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23. Economic development and the plight of underdeveloped countries.
24. The nature, strengths, and weaknesses of other economic systems, including Communism and socialism.[1]

If the economic knowledge of every high school student should encompass this range, how much more should the teacher or administrator of vocational education know? Ignoring the ambitions of the American Economic Association task force, this paper will list in broad outlines the kind of economic information most needed by vocational education leaders and suggest sources and techniques through which the knowledge might be obtained.

Why Economics for Vocational Educators?

What and how much knowledge of economics is needed by vocational educators depends upon the objective. That might be:

1. For his own use as a producer, consumer, citizen, and maker of education policy.
2. As a general background for perspective in teaching vocational subjects.
3. To use vocational education courses as a vehicle for teaching general economics.
4. To teach vocational students the essential workings of a labor market as a component of education for employment.

All are desirable and appropriate but each objective in the listing is successively a more direct responsibility of the vocational teacher. Possession of knowledge of the essentials of economics cannot but improve the functioning of the vocational educator as a person, citizen, public servant, and teacher. A knowledge of the mysteries of public finance in general and the economics of public education in particular should be a helpful tool for those who lobby for a larger cut from the public revenues. A knowledge of the uses and limitations of manpower projections should contribute to more reasonable planning of facilities and courses. Familiarity with the functioning and the institutions of labor markets should add to the effectiveness of one charged with preparing others for employment. However, the primary determinant of the economic knowledge required of vocational leaders should be the economic knowledge needed by vocational students.

Though over seven million students (3.5 million of them in high school) enroll during a year in one or more classes supported by federal vocational education funds, few secondary students would be considered as primarily vocational students. Few teachers are employed in high schools which are primarily

[1] *Economic Education in the Schools* (New York: Committee for Economic Development, 1961), as interpreted by George J. Stigler, "Elementary Economic Education," *The American Economic Review*, May 1963, pp. 653–659. For other discussions of the current state of and need for economic education in the secondary schools see *Economic Literacy for Americans* (New York: Committee for Economic Development, 1962); G. L. Bach and Phillip Saunders, "Lasting Effects of Economics Courses at Different Types of Institutions," *The American Economic Review*, June 1966, pp. 505–511; John E. Maher, "DEEP: Strengthening Economics in the Schools," *The American Economic Review*, May 1969, 230–238; Galen Jones, "The Currrent Status of Economics Teaching in the High Schools of the United States," from *Economic Understanding: Continuing Quest in Secondary Schools*, November 1965, p. 154.

vocational in their offerings and objectives. For the vocational high school and the post-secondary institution primarily vocational or technical in its offering, the economic knowledge to be provided the student is a direct responsibility of vocational educators. For others, the question is one of contributing to a general education goal.

The conviction has grown in recent years, pressed largely by business organizations disturbed that students do not show more commitment to "private enterprise," that economic education should be an important part of every school curriculum. Few, particularly not economists, would argue with that conclusion. The practical question is how to teach it. At the broadest level of decision, there are essentially two alternatives: 1) economics can be taught directly as a separate course or as a component of a social studies curriculum, or 2) classes primarily concerned with other subjects can be used as vehicles to teach economic principles and facts. For instance, the concepts of national income accounting could be used and taught in arithmetic classes; national economic policies could be examined in history; national resource conservation and development is a logical accompaniment of geography, etc.

Vocational courses offer outstanding opportunities for such an integrated approach. What better place to teach the principles of supply and demand than in distributive education, of consumer education than in home economics, of farm policy than in vocational agriculture? But no more than 15 percent of high school students and three to four percent of post-secondary and adult groups ever enter a vocational classroom. Vocational educators can contribute to general economic understanding but they have only a limited responsibility to do so. The primary purpose of teaching economics to vocational educators is so they can pass on to their students those elements of economic knowledge which will enhance preparation for employment.

Economics and the Philosophy of Vocational Education

Economics is the art of identifying the most efficient ways of utilizing available human, natural, and capital resources to fill the needs and achieve the objectives of society. There have been three great stages of economic history, the agrarian when natural resources were the critical determinant of wealth, the industrial when the accumulation and use of capital was the key to economic growth, and an emerging post-industrial economy in which human resources are rising to prime importance. The recent shift in philosophy represented by 1963 and 1968 vocational education legislation reflects this pattern. The Smith-Hughes Act of 1917 was primarily dedicated to meeting the skill requirements of an adolescent industrial society. The new emphasis is the employment needs of people. Where once education was a determinant of the employment opportunities of only a few, income and status are becoming a direct function of formal preparation for labor market participation.

These changing conditions place a new responsibility on vocational education leaders. If they are to prepare students for employment in their chosen occupations rather than simply teach the skills of those occupations, the educators themselves will need broader preparation. Job skills are essential to a successful working career. So are good mental and physical health, a conviction

that work is inherently good and is the most appropriate source of income, good work habits and the acceptance of discipline, the basic skills of communication and computation, a knowledge of the fundamentals of science and technology, the information and ability to make wise vocational choices, and the attitudes required for sound human relations. Good vocational education has always included instruction related to these matters, but the relative importance of these non-skill aspects is rising.

What Vocational Students Need to Know

To be adequately prepared for employment, the vocational student must come to the labor market armed with a general understanding of the workings, values, and institutions of the American economy, the information and wisdom for occupational choice, a motivation to produce, and the ability to do so. All of these need not be provided by vocational teachers, but it is the responsibility of vocational leadership to see that the requisite knowledge is obtained.

The student could be much better assured of a successful and satisfying working career if his economic understanding went beyond those minimums. For a business education student to become more than a typist or clerk requires an understanding of the market economy, the role of the business firm and its relationship to other institutions of the economy. He needs to have engraved in his mind the basic principles that marginal cost equal to marginal benefits equals maximum profits.

A vocational agriculture student who has missed the implications of the basically inelastic demand for farm products is destined to be a puppet controlled by impersonal market forces. An at least intuitive understanding of the marginal principles and of the law of diminishing returns may be the boundary between commercial and subsistence agriculture. Distributive education students, if they are to be more than clerks, need an understanding of the principles of supply and demand, and so forth.

The need all vocational students have in common, however, is the fact that all will become participants in a labor market. They must make an occupational choice, which should include some estimate of the alternative near and longer-term employment and earning opportunities in the various fields. They should have some notion of the marginal costs and benefits of attaining more education or training. They must be familiar with the various labor market institutions which provide information, placement services, or other assistance, or which represent employees in their dealings with management. Students should understand social security, fringe benefits, and other measures for economic security. It would be helpful if they understood the relationship between productivity and real wages and production costs, profits, and wages.

It would be convenient for the vocational educator if, particularly in the comprehensive high school, the teaching of these topics could be left to the social studies teacher. However, only 10 to 20 percent of high school students have access to courses in economics with a similar number taking courses in "problems of democracy" which include a unit on economics.[2] It is likely that

[2] G. L. Bach and Phillip Saunders, "Economic Education: Aspirations and Achievement," *American Economic Review*, June 1965, pp. 337–338.

this group is almost totally college bound. The amount of economic knowledge which can be packed into a general social studies course accompanied by appropriate bows to other disciplines is undoubtedly limited. The vocational educator who is conscientious about his obligation to help the student reap the best possible employment preparation out of his educational experience will want to add the insurance of personal instruction. At least he will want to know enough about economics to know whether his student is being exposed to any. Vocational education leadership has only an overall responsibility for economic understanding and other aspects of occupational preparation but must understand the principles and issues to see that they are taught.

What Do Vocational Educators Know About Economics?

There have been some studies of the economic literacy of teachers in general but none of vocational instructors in particular. Since the economic background of the average public school teacher is so meager, there is no reason to expect vocational educators to be better prepared. Only business education and social studies teachers, as a general rule, take any significant amount of course work in economics during their education, with the former apparently receiving more than the latter. Any economics taken by vocational educators other than business education would be an accident. Private business firms occasionally sponsor economic education for their employees. An instructor with a strong industrial background could have been caught in such a flimsy net, but it is unlikely.

Without better evidence, one can conclude that the economic knowledge of vocational instructors in general is deficient compared to the knowledge their students need.

An Economic Curriculum for Vocational Education

Vocational educators should accept some responsibility for the student's familiarity with the economics of the labor market for two reasons: 1) because the chances of the non-college bound student receiving any meaningful amount of economic instruction is so slim, and 2) because economics may be learned easier when integrated with other subject matter of deep interest to the student. Such an assignment would involve two critical stages: 1) preparing the teacher, and 2) designing the curriculum.

For the vocational educator who prepares himself in college especially for his role, the accession to economic knowledge is not too difficult. It can be included in his classroom requirements, though at the expense of other subject matter which might have been taught during the same hours. For most business education majors, this is an accomplished fact. Home economics teachers already have some "consumer education" but will be forced to prepare themselves more intensively in order to handle their new task assigned by the 1968 Vocational Education Amendments to give consumer education to the homemakers in poverty households. Requiring some formal introduction to economics would not be difficult for those for whom a college education is a necessary prerequisite for teaching, vocational agriculture, for example. For trades and industry instructors, and to a lesser degree distributive education, health education and

technician training, college education for all instructors cannot be assumed. Since in-service training is an almost universal requirement as a substitute, essential economic understanding could be incorporated at that stage. Studies showing that numerous courses in economics are necessary before understanding becomes more than rudimentary also argue for specialized in-service training.

The ideal approach to giving the vocational student the essentials of labor market economics would be the integrated academic-vocational approach represented today by such experiments as the Richmond plan and the American Industries program. If an economics trained teacher related the necessary economic principles directly to a vocational project as is currently the case for math, physics and some other disciplines in a Richmond plan team teaching effort, for instance, the student could see the relevance and the vocational instructor could be relieved of the peripheral burden. The latter would have to know only enough economics to point up relationships at convenient moments. Where no other economic exposure is available to the student, the vocational educator's responsibilities are greater.

The newly assigned funds for teacher preparation under the 1968 Vocational Amendments and the Education Professions Act make possible both preservice and in-service economics training for vocational educators. A requirement for a prescribed number of hours of economics can be a beginning for the college prepared vocational educator. However, the evidence is that little knowledge is retained by the student of a single introductory economics course. While the introductory course is a desirable beginning, a more dependable approach, both for the specifically prepared vocational teacher and those who may come to the profession as an afterthought with somewhat "catch as catch can" preparation, would be to add to the in-service curriculum specially prepared packages of economic instruction tailored to the vocational educator's discipline and to the nature of the local school program. A general understanding of the workings of the American economy and a more specific exposure to the economics of the labor market should be the common core. Instructors should know enough about manpower requirements and the employment outlook to supplement or substitute for the vocational guidance counselor. Added should be exposure to principles and institutions critical to particular occupations. The new emphasis on vocational education for the disadvantaged makes imperative exposure to the economics of poverty and discrimination.

Time is always scarce. The opportunity cost of an additional requirement is the alternative uses of the same hours. Sociology, psychology, and other social studies will consider themselves as critical as economics. An economist can be perhaps excused for seeing his discipline in top priority. An integrated social studies package may be the answer if the essential principles, facts, and analytical techniques of each discipline can be made to come through sharply enough. Whether an appropriate in-service curriculum can be devised will not be known until it is tried.